REMARKS

The Office Action mailed July 3, 2006 considered and rejected claims 1-32. Claims 14-26 and 32 were rejected under 35 U.S.C. 101 because they recited computer-readable media that was not specifically limited to media that was tangible in nature. Claims 1, 2, 9, 14, 15, 22, 30 and 31 were also provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 4, 5, 10, 14, and 17 of copending Application No. 10/763,353. Claims 1-5, 7, 8, 14-18, 20, 21, and 27-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Reynolds et al. (US 5,627,964) (hereinafter *"Reynolds"*).[1]

By this amendment, claims 6, 9, 13, 14, and 32 are amended such that claims 1-32 remain pending. Claims 1, 6, 9, 13, 14, 30, and 32 are independent claims which remain at issue (with claims 6, 9, and 13 being dependent claims having been rewritten in independent form).

The present invention is generally directed towards adaptive recovery from system failure for application instances that govern message transactions. *See* Specification ¶¶ 6-10. It should be noted that *Reynolds* is generally directed towards a method invoking, at startup time, a limited "fail-safe" functionality for a computer system having a graphical user interface (GUI). *See Reynolds*, Abstract. More specifically, *Reynolds* teaches a method by which limited functionality may be accessible by a user through a GUI after failure of a computer system. *See, generally, Reynolds*. The present invention, as more particularly pointed out in the specification and the claims, discloses methods and products which may be employed to allow mechanisms for adaptively entering and exiting recovery mode after a system failure and allow applications to branch process flow to recover from previous system failure. *See* Specification ¶¶ 6-7. Reynolds, on the other hand, is generally directed towards embodiments in which a user manually attempts recovery after a system failure. *See, generally, Reynolds*. Only a "smaller, more limited set of GUI features" are provided for a user to employ, manually, for system diagnostics and recovery under the teachings of *Reynolds*. *See Reynolds*, col. 3 lines 30-49. In contrast to *Reynolds*, the present invention teaches methods and products for automatic recovery after system failures. *See* Specification ¶ 45 ("the processing instances itself is in control of its own recovery"). The discussion, below, will, in part, more particularly point out innovative distinctions between the present invention and that taught by *Reynolds*.

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[1] Although the prior art status of the cited art is not being challenged at this time, Applicant reserves the right to challenge the prior art status of the cited art at any appropriate time, should it arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.

Concerning rejection under 35 U.S.C. § 101 of claims 14-26 and 32:

Claims 14-26 and 32 were rejected under 35 U.S.C. § 101 for embodying non-statutory subject matter because the specification ¶ 26 defines "computer readable media" as including "both storage media and communications media." In order to expedite prosecution of the application, independent claims 14 and 32 have been amended to limit "computer readable media" to "recordable-type computer readable storage media." It should be noted, however, the applicant respectfully disagrees that data signals sent over wired and wireless media do not meet the "useful, concrete, and tangible result" test set forth in *In re Alappat*, 33 F.3d 1526, 1544 (Fed. Cir. 1994) (cited by *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998)). Computer code recorded on magnetic media are electromagnetic signals which may be sensed by appropriate computer equipment and executed by appropriate computer processing units. So, too, is computer code conveyed by wireless means electromagnetic signals which may be sensed by appropriate computer equipment and executed by appropriate computer processing equipment. Wireless signals should be considered both "useful" and "tangible" under the test enunciated by *Alappat* and cited by *State Street Bank*. *See State Street Bank*, 149 F.3d at 1373 (citing *Alappat*, 33 F.3d at 1544). The foregoing argument notwithstanding and being mindful of the Interim Guidelines (which indicate a similar view towards wireless signals), the applicant has amended independent claims 14 and 32 to remedy the Examiner's concern. Correspondingly, the rejection under 35 U.S.C. § 101 should now be overcome and the Applicant respectfully requests the Examiner withdraw any rejection under 35 U.S.C. § 101.[2]

Concerning the rejection for obviousness-type double-patenting:

The Examiner has made a provisional rejection of claims 1, 2, 9, 14, 15, 22, 30, and 31 for obviousness-type double patenting based on claims 1, 2, 4, 5, 10, 14, and 17 of copending Application No. 10/763,553. To overcome this rejection, a terminal disclaimer is filed with this response appropriately limiting the term of patent granted from prosecution of this application.

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[2] It should be noted that the only rejection of independent claim 32 was that under 35 U.S.C. 101 for non-statutory subject matter. Considering the amendment, there should now be no further objection to allowance of Claim 32.

Correspondingly, the Applicant respectfully requests the Examiner to withdraw the rejection for obviousness-type double patenting.[3]

Concerning Allowable subject Matter in claims 6 and 9-13:

The Examiner indicates that dependent Claims 6 and 9-13 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 6, 9 and 13 have been amended, as suggested by the examiner, to include all of the limitations of the base claim and any intervening claims. Claims 11-12 are dependent upon Claim 9 and so claims 6 and 9-13 should now be in a form appropriate for prompt allowance. The Applicant respectfully requests the Examiner now allow claims 6 and 9-13.

Concerning claim 1:

Claim 1 was rejected under 35 U.S.C. § 102(b) as having been anticipated by *Reynolds*.

The Examiner cites to *Reynolds*, col. 6, lines 20-25, for "an act of receiving a message corresponding to a particular message transaction following a message exchange pattern." It should be noted that the "flag" as taught by Reynolds, col. 6, line 25, cannot be accurately equated with "message" as discussed in the present invention. The Reynolds flag is a simple, binary indication of whether a computer system has failed. A "message," as used in the present invention, however, is a much larger and more complicated component of a "message transaction" which is part of a "message exchange pattern" utilized by an application to accomplish a particular task. *See* Specification ¶¶ 6-7. A "message," as taught by the present invention, "may be any electronic message such as, for example, a HyperText Transport Protocol (HTTP) message or a Simple Object Access Protocol (SOAP) message." *See* Specification ¶ 29. "Determining a flag," as discussed in *Reynolds*, therefore, should not be equated with "receiving a message" as is taught by the present invention.

The Examiner equates "loading state information;" *see* claim 1; with "loading flag information;" *see Reynolds* col. 6, lines 59-64. It should be noted that loading state information cannot be accurately equated with Reynolds' "loading flag information." State information is information pertaining to each of an application's message transactions. *See* Specification ¶ 31 ("the computing system has state information for five different message transactions in system

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[3] It is not the intent of the Applicant to surrender any available protection for any claims in the present application which are distinct from application no. 10/763,553.

memory"). There may be a multiplicity of simultaneous state information on a particular system for different message transactions and different applications. In contrast, in *Reynolds*, the flag information only indicates only whether the entire system is or is not in failure recovery mode. *See Reynolds*, col. 6, lines 20-34. As state information is information concerning discrete messages in discrete message transactions, it should not be equated with *Reynolds'* "flag information."

The Examiner equates "an act of determining from the state information whether or not the processing instance ... is in recovery mode" with *Reynolds'* determination of a "fail-safe boot." *See Reynolds* col. 6, lines 25-34. This limitation of claim 1 cannot accurately be equated with *Reynolds'* "fail-safe boot." In the present invention, the determination of recovery mode is made on an application-by-application basis and a message-by-message basis. *See* Specification ¶¶ 49-51. It is possible with the present invention to have an application simultaneously processing multiple message transactions, some of which are in recovery mode while others are in normal mode. *See* Specification ¶ 51 ("each processing instance may be in normal mode or recovery mode independent of the other processing instances"). This transaction-by-transaction determination and processing is not possible with the teachings of *Reynolds* which only teaches booting a computer system, at startup time, in a limited functionality mode in order to manually facilitate recovery. *See, generally, Reynolds*.

Finally, the Examiner equates "branching process flow" with *Reynolds'* teaching of booting a computer system in normal or fail-safe mode. Again, the branching of process flow as taught by the present invention cannot accurately be equated with the single choice, at startup time, of normal or fail-safe mode in *Reynolds*. As discussed above, the branching of process flow may happen on an application-by-application or message-by-message basis. In the present invention, on a single computing system there may multiple instances of message transaction processing, some of which are processing in normal mode and some of which are processing in recovery mode. *See* Specification ¶ 51 ("each processing instance may be in normal mode or recovery mode *independent* of the other processing instances" (emphasis added)). The confusion here stems from the inaccurate equating of "processing instance" in the present invention with the startup sequence of a computer system in *Reynolds*. *Reynolds* teaches loading in normal or recovery mode "during the bootstrap loading sequence of the operating system, or ... in response to a failure in an attempt by the system to load the normal complement of [graphical user

interface] functions" of an operating system. *See Reynolds*, col. 3, lines 30-49. In contrast, "processing instance" in the present invention is "responsible for governing a specific message transaction with a particular client computing system using [an application's particular] message exchange pattern." *See* Specification ¶ 6. The limitation in claim 1 should be read as a whole. When read as a whole and with the particular definition of "processing instance", it can be seen that "an act of branching process flow depending on whether or not the processing instance is in recovery mode" is quite distinct from determining at bootstrap time whether to boot a computer in normal or recovery mode as is taught by *Reynolds*.

As is pointed out in the foregoing discussion, *Reynolds* does not teach all the particular limitations and elements taught by the present invention and as particularly claimed in claim 1. The Applicant respectfully requests the Examiner look at the particular distinctions, pointed out above, between the present invention and that taught by *Reynolds*. A rejection under 35 U.S.C. § 102(b) is proper only if each and every element is taught by a single prior art reference. *See* MPEP § 2143. In view of the above discussion, the Applicant submits that claim 1 is distinct from *Reynolds*, contains elements not taught by *Reynolds*, and is in condition for prompt allowance. The Applicant respectfully requests the Examiner withdraw the rejection of Claim 1 under 35 U.S.C. § 102(b) and issue its allowance.

Concerning claims 2-13:

Claims 2-13 are all dependent claims descending from Claim 1. As the rejection of Claim 1 should now be overcome as per the discussion, above, dependent claims 2-13 should also now be in condition for prompt allowance. The Applicant respectfully requests the Examiner withdraw any rejection and now allow claims 2-13.

Concerning Claim 14:

Independent Claim 14 is rejected under 35 U.S.C. § 102(b) on the same basis as was claim 1. As such, the discussion of Claim 1, above, applies equally to Claim 14 and so should now be considered in condition for allowance. The Applicant respectfully requests the Examiner withdraw any further objection to Claim 14 and issue its prompt allowance.

Concerning claims 15-29:

Claims 15-29 are all dependent claims descending from Claim 14. As the rejection of Claim 14 should now be overcome as per the discussion, above, dependent claims 15-29 should

also now be in condition for prompt allowance. The Applicant respectfully requests the Examiner withdraw any rejection and now allow claims 15-29.

Concerning Claim 30:

Independent Claim 30 is rejected under 35 U.S.C. § 102(b) on the same basis as was claim 1. As such, the discussion of Claim 1, above, applies equally to Claim 30 and so should now be considered in condition for allowance. The Applicant respectfully requests the Examiner withdraw any further objection to Claim 14 and issue its prompt allowance.
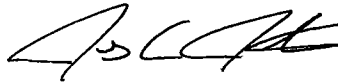
Concerning Claim 31:

Claim 31 is dependent upon claim 30. As the rejection of Claim 30 should now be overcome as per the discussion, above, dependent claim 31 should also now be in condition for prompt allowance. The Applicant respectfully requests the Examiner now withdraw any rejection and allow claim 31.

In view of the foregoing, Applicants respectfully submit that the other rejections to the claims are now moot and do not, therefore, need to be addressed individually at this time. It will be appreciated, however, that this should not be construed as Applicants acquiescing to any of the purported teachings or assertions made in the last action regarding the cited art or the pending application, including any official notice. Instead, Applicants reserve the right to challenge any of the purported teachings or assertions made in the last action at any appropriate time in the future, should the need arise. Furthermore, to the extent that the Examiner has relied on any Official Notice, explicitly or implicitly, Applicants specifically request that the Examiner provide references supporting the teachings officially noticed, as well as the required motivation or suggestion to combine the relied upon notice with the other art of record.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney.

Dated this 3rd day of October, 2006.

Respectfully submitted,

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